УДК 37.013:[373+378]:004(476)

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FORMATION OF TEACHER'S INFORMATION CULTURE AS A CONTINUITY ENSURING FACTOR IN SECONDARY AND HIGHER EDUCATION SYSTEMS WITHING THE DIGITALIZATION FRAMEWORK[1]

Objective: *identification of system-forming characteristics, structure components, formation signs and stages of basic component in the teacher's general culture formation - their information culture, defined as one of determining factors in succession mechanisms implementation at systemic levels of secondary and higher education in the Republic of Belarus within the framework of digital transformation measures.*
Materials and methods. *When writing the article, groups of sources were used, including state programs' documents in the field of digitalization of education, as well as scientific publications on research issues. When working with scientific analytics sources and materials, the following methods were used: sources content analysis, a comparative method.*
Results. *During the study and based on its results, phenomenological features of the teacher's information culture were identified, its structuring, system-forming formation signs and stages were determined. As a whole, solving these problems allows to consider the teachers' information culture as a complex sociocultural phenomenon, one of the determining factors for ensuring continuity at the systemic levels in secondary and higher education in the context of educational sphere digitalization.*
Conclusion. *The objective of the study has been achieved. The main phenomenological characteristics, structure, signs of formation and the very stages of the teacher's information culture formation were identified, which make it possible to determine the studied phenomenon as a complex and multifaceted one. Its level-formation is described as one of the determining factors of the teacher's personality professional development in relation to the problem of ensuring the continuity at systemic levels of secondary and higher education in digitalization framework of the education sector in the Republic of Belarus.*

Keywords: *digitalization of society, digital transformation of education, information culture, information and communication space, continuity.*

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[1] Статья публикуется в авторской редакции.

СФОРМИРОВАННОСТЬ ИНФОРМАЦИОННОЙ КУЛЬТУРЫ ПЕДАГОГА КАК ФАКТОР ОБЕСПЕЧЕНИЯ ПРЕЕМСТВЕННОСТИ СИСТЕМ ОБЩЕГО СРЕДНЕГО И ВЫСШЕГО ОБРАЗОВАНИЯ В УСЛОВИЯХ ЦИФРОВИЗАЦИИ

Цель – *выявление системообразующих характеристик, компонентов структуры, признаков сформированности и этапов формирования одной из базовых составляющих общей культуры педагога – его информационной культуры, определяемой в качестве одного из детерминирующих факторов реализации механизмов преемственности на системных уровнях общего среднего и высшего образования в Республике Беларусь в условиях осуществления мероприятий цифровой трансформации.*

Материалы и методы. *При написании статьи использованы группы источников, которые представлены документами государственных программ в сфере цифровизации образования, а также научные публикации по проблематике исследования. При работе с источниками и материалами научной аналитики применялись методы: контент-анализ источников, сравнительно-сопоставительный метод.*

Результаты. *В процессе исследования и по его результатам выявлены феноменологические черты информационной культуры педагога, определены ее структурированность, системообразующие признаки сформированности и этапы формирования. В своей совокупности решение данных задач позволяет рассматривать информационную культуру педагогов в качестве сложного социокультурного феномена, одного из детерминирующих факторов обеспечения преемственности на системных уровнях общего среднего и высшего образования в условиях цифровизации образовательной сферы.*

Заключение. *Цель исследования достигнута. Выявлены основные феноменологические характеристики, структура, признаки сформированности и сами этапы формирования информационной культуры педагога, позволяющие определять изучаемое явление как сложный и многоаспектный феномен. Его уровневая сформированность определяется в качестве одного из детерминирующих факторов профессионального развития личности педагога применительно к проблематике обеспечения преемственности системных уровней общего среднего и высшего образования в условиях цифровизации сферы образования в Республике Беларусь.*

Ключевые слова: *цифровизация социума, цифровая трансформация образования, информационная культура, информационно-коммуникационное пространство, преемственность.*

Научная новизна статьи

Представлен современный взгляд на проблематику вопросов, связанных с формированием феномена информационной культуры современного педагога в условиях реализации мероприятий цифровой трансформации образовательной сферы, определяемых в качестве одной из важных тенденций развития образования. С позиций понимания социально-философского, культурологического, системно-средового, компетентностного и личностного подходов в педагогической науке сформулированы теоретико-методологические положения, позволяющие оценивать феноменологическую сущность предмета исследования – информационную культуру педагога в качестве сложного социокультурного феномена. Его сформированность определяется важным детерминирующим фактором обеспечения преемственности на системных уровнях общего среднего и высшего образования в условиях цифровой трансформации и становления IT-общества в Республике Беларусь.

Scientific novelty of the article

A modern look at the issues related to the information culture of a modern teacher phenomenon formation in the context of the digital transformation measures implementation in education, determined as one of the important trends in education development, is presented. From the standpoint of understanding sociophilosophical, culturological, system-environmental, competent and personal approaches in pedagogical science, theoretical and methodological provisions are formulated that allow assessing the phenomenological essence of the subject of research – the information culture of the teacher as a complex sociocul-

tural phenomenon. Its formation is determined by an important determinant of ensuring continuity at the systemic levels in secondary and higher education in the context of digital transformation and the formation of IT society in the Republic of Belarus.

Introduction. Implementing the provisions of the Concept of Digital Transformation of Processes in the Education System of the Republic of Belarus for 2019-2025 and state programs for the educational sphere digitalization [1–2] involves the study and the practical solution to the set of issues, ensuring continuity at the systemic levels of secondary and higher education. As part of the formation of an IT-society, the solution to this problem is updated by the planned creation by 2025 of a single Republican information and educational environment (RIEE) and its educational segment, which is defined as an important technical, technological and educational resource that ensures the organization and implementation of the training process. Dynamic technologization of education along with qualitative change of information, communication space and evolution of institutional organization of educational institutions (development of STEM-education in schools, development of models of universities 3.0 and 4.0 [3; 4]) are important trends in the evolution of the Republic of Belarus educational sphere in the context of digitalization. Taking into account these provisions in their complexity is mandatory within the framework of scientific reflection related to the identification of determinants for ensuring continuity, where the formation of a high level of the teacher's information culture development as one of the subjects of training can be seen. As part of solving the problems of scientific and pedagogical research, it is necessary not only to determine the phenomenological essence and characteristics of the teacher's information culture (IC), but also to have a clear idea of its multi-component structure, and, very importantly, the mechanisms of formation stages and signs. Such a theoretical and methodological justification allows to practically consider the process of forming and developing the information culture of a teacher as specialist in the system of education by considering one of the central elements ensuring the quality of the educational process and the continuity at various levels of secondary and higher education at the stage of digitalization. The proposed system of organizational and pedagogical conditions, presented as imperative requirements from the methodological side, will become an important foundation for ensuring high-quality content and dynamics of education development in the context of expanding the practice of integrating innovative information and communication technologies (ICT) and high-tech technical means into education.

Main part. Studies carried out by A. M. Afzalova, N. I. Gendina, E. V. Danilchuk, I. A. Zimnyaya, O. Yu. Zinovich, S. M. Konyushenko, L. I. Lazareva, V. L. Lozitsky, O. A. Minich [5–14] address different aspects of issues related to the personalities IC phenomenon making it possible to define it as part of the basic culture and describe system characteristics that justify the active integration of the subject of activity into processes and interactions related to information and communication technologies. More specifically, Belarusian researcher O. A. Minich defines the information culture of the teacher's personality as a system of personal and professional qualities that reflect a significant manifestation of professionalism in organizing and carrying out pedagogical activities in a high-tech educational environment [14, p. 3–4].

In its phenomenology, the teacher's information culture can be understood through an understanding of its essence in the dialectical unity of semantic integration, where the IC acts as the following: as the goal of personal development; as a condition for procedural development and self-improvement; as a sign of the level of professionalism achieved; as a value – the professional affiliation of a teacher and a higher education institution educator.

The information culture of the teacher's personality structurally combines the following worldview and competence components:

– information literacy and competence in understanding the nature of information processes and relations (determined by the availability of relevant competencies – knowledge, abilities and skills of using high-tech means while working with information enshrined in personal and socially significant experience);

– humanistically oriented axiological consideration (aspirations, interests, worldview and value orientations, which are implemented in educational activities);

– functional literacy (a type of literacy represented in the teacher's ability as a subject of activity to carry out competent and effective practical actions in multifaceted professional and pedagogical life situations);

– developed information reflection (the teacher's ability to think technologically and algorithmically on the basis of the formed analytical, projective, prognostic and reflective skills when assimilating and applying information in pedagogical activity);

– creativity in information behavior and social and information activities (collectively carried out in creative actions and activities on the use of formed information literacy in the interests of solving professional tasks of the teacher);

– traditional and innovative high-tech mechanisms of social and information activities.

In such integration, the level-formation and development of the noted axiological components of the IC structure among teachers is important due to the influence on the processes implemented in the educational sphere within its digital transformation. The lack of an information culture formed at the productive levels of educational activity subjects (school teachers, university educators, school and university students) makes them hostages of their own restrictions and situations of contradiction between the dynamic development of the information and communication space and a subject who is not able to effectively carry out activities in this environment (for example, high-tech educational activities using the potential of ICT tools). Taking a closer look on ensuring continuity at the levels of secondary and higher education, the problem is seen in the need to achieve the functional adaptation of teachers and students to the peculiarities of the system-environment organization (on the example of the effective use of educational and methodological resource support for the educational segment of the official documents on information and educational environment). In practical terms, it is the formation and development at productive levels of information culture and its components among the subjects of pedagogical interaction that is one of the determining ones in the effective organization and implementation of educational activities in the context of digitalization of the educational sphere, in solving the problem of the functional and technological gap [12; 13]. A school student and a university student are able to form and develop their own information culture with the help of a professional teacher, who himself has a set of specified competencies with formed professional qualities.

Understanding the phenomenological essence of the teacher's information culture allows us to determine its following features: structuring characteristic (knowledge and competencies of the school teacher and university educator, like any information, are structured and organized in a special way); axiological characteristic (reflects the values of the IT community and the guidelines for digitalizing education in the personal ideals of teachers); individualization (the aggregate result of creative activity, reflecting the personal professional experience of the teacher in the information and communication space); adaptability (implemented in the successful professional activity of the teacher as a competitive, mobile specialist; reflects the procedural and qualitative evolution of structure and content over time, taking into account changes in the information and communication space and education); accumulative capacity (information recorded in knowledge is accumulated, expanded in volume, specified and deepened); selectivity (consolidation of information and the formation of specific information and communication competencies occur according to psychological patterns).

The teacher's information culture in understanding the development of a systemically structured structure is advised to be considered at the following levels:

– motivational and goal-oriented (there is motivation of the person to achieve the goal, the need and interest of the teacher in finding information, mastering and developing competencies in the field of ICT);

– cognitive (a combination of social, natural and technical knowledge is used, reflecting the systemic understanding of modern IT-society, as well as the competencies of the teacher, which make up the information base of search cognitive activity);

– operational (implemented through the activities of the teacher in the field of obtaining, accumulating, broadcasting, processing and creating new information on this basis, as well as its practical use);

– evaluative-reflective (reflects the experience of the teacher's search activity in the field of software and IT-resources, ensuring readiness to find a solution to professional problems up-

dated by the processes of digital transformation of education).

The determination of the phenomenological essence of the teacher IC, its multi-component structure, characteristics and features from the practice-oriented positions of the phased professional improvement of the teacher makes it possible to note the signs of formation to which we refer: initiative, the ability to quickly solve professional problems in the information and educational sphere; ability to independently analyze the information and communication essence of the pedagogical situation; speed of orientation in information flows; the ability to organize optimal storage and use of information; availability of operator skills; knowledge of modern developments in the use of ICT in the educational process; capacity for scientific and research activities; psychological adaptability, self-organization and self-reflection of pedagogical activity and its results.

From a practical point of view, the formation and development of an IC teacher should be defined as a progressive and long-term, level and phased process that takes place in activity. Within the framework of active-competent [14] and design-reflective approaches [10] in pedagogy, this activity should procedurally combine information-communicative and pedagogical competencies in their developing implementation. The ideal formation and development of this integration from the point of view of ensuring continuity will be successful through the implementation of project activities in conjunction with students (for example, when creating a project of a training lesson at the initial stage and a system of lessons at the initial stage) and students (educational and scientific projects in the conditions of study at universities models 3.0 and 4.0). A prerequisite for the beginning of the phased formation and development of the teacher's information culture is the motivation for self-improvement, as well as the reflection of the pedagogical process and its effectiveness as a component of the integration of information, communication and pedagogical competencies.

At the first stage, the teacher is: mastering the technical, technological and didactic potential of ICT tools; reflective understanding of the role of innovative ICT in human and social life; the formation of teachers' skills to use high-tech means of training in professional activities through the qualitative use of their instrumental capabilities; assimilation of knowledge and ac-

tions in the field of information and communication security; formation of completeness of competencies for working with information in project activities; formation of an algorithm for reflecting the pedagogical process and its effectiveness; development of the teacher's motivation to increase the level of formation of an information culture.

The second stage of the process of forming teacher IC involves: the formation of strong knowledge about the resource capabilities and functionality of educational and methodological support in solving a complex of pedagogical tasks in the process of organizing and implementing training; implementation of design of educational activities with application of technical, technological and didactic potential of ICT means and expansion of their use in combination with traditional means of training in didactic process; development of competencies in the field of information and communication security; reflection of ICT processes and results in educational activities.

The third stage is characterized by: expanding the integration of ICT into the practice of training and professional pedagogical activities based on a meaningful understanding by the teacher of the role and functions of high-tech resources and innovative technical means in the design of lesson models; effective application of ICT resource capabilities for solving specific professional pedagogical tasks in the framework of ensuring effective pedagogical interaction with students in a high-tech educational environment; implementation of safe information and communication activities by teachers and training of students in security methods; summarizing the analytical data of the training results and a detailed reflection of the integrated use of ICT resources and traditional teaching tools in pedagogical activities.

At the fourth stage, the following is carried out: a deep understanding of the professional position of the teacher, content, methods, forms, techniques and means of educational activity, taking into account the potential of ICT and the need to ensure continuity; solving more complex modeling problems and developing effective educational and methodological support for the didactic process, taking into account the potential of the educational segment of the official information and educational environment; management of research and project activities of school and university students taking into ac-

count their individual information and educational needs and individual educational trajectories; complete and detailed reflection of the didactic process, educational achievements of students, their own professional activities and development results based on an understanding of the prospects for improvement, education and self-education.

The fifth stage of the formation and development of teacher IC is characterized by: demonstrating the level of formation of an information culture in the skills of improving or changing algorithms of professional pedagogical activity, which are relevant in the context of digital transformation of education; formation of ICT competence, initiative and ability to quickly solve professional problems in the information and educational sphere; ability to independently analyze the information and communication essence of the pedagogical situation; speed of orientation in information flows; the ability to organize optimal storage and use of information; availability of developed skills of the user-operator; knowledge of modern developments in the use of ICT in the educational process; implementation by the teacher at the level of skills and formed competencies of information security and training of students and students in safe information behavior; capacity for scientific and research activities; psychological adaptability, self-organization and self-reflection of pedagogical activity and its results.

On the practical side of pedagogical knowledge, within the framework of a systematic approach to the training and retraining of educational specialists, extremely important elements of the system for the formation and development of information culture of school teachers and higher educational institutions educators are the conditions for the effective implementation of the process, taking into account digital transformation measures. Organizational, managerial, psychological, pedagogical and methodological conditions in their totality include:

– theoretical and methodological development of issues of formation and development of information culture of teachers taking into account continuity of systems of general secondary and higher education in conditions of digitalization of educational sphere;

– availability of high-quality system interdisciplinary educational and methodological procedural and substantive support for the process of formation and development of IC subjects of educational activity;

– a combination of forms, methods and means of professional development in the structure of the pedagogical system of education management, focused on the multifactness of the tasks performed and the development of the information culture of teachers;

– generalization and dissemination of experience of practical-oriented development of effective development of information culture of subjects of educational activity;

– establishment of high motivation for formation and development of professional qualities of a teacher, complex of information culture taking into account formation of ideal of a teacher carrying out his professional activity in conditions of high-tech information and communication space within the framework of digital transformation of education;

– implementation of the educational process with an orientation towards self-disclosure and self-development of the personality of the teacher and students, creation of a comfortable and creative climate for all subjects of pedagogical interaction, taking into account the solution of professional tasks and pedagogical situation in the information and communication space;

– development of technical, technological and didactic potential of information and educational environment of institutions of general secondary and higher education;

– functional and activity adaptation of subjects of educational activity to the level of dynamic technologization of the information and communication space in the context of digital transformation of education;

– provision of high-quality educational information resources, the use of which in functional models of training sessions as components of a complex of training aids increases the methodical level of preparation of the teacher;

– ensuring information security of the educational process;

– guaranteed compliance with sanitary and hygienic requirements in the process of organizing and implementing educational activities using ICT tools.

Experimental activities to study the problem of ensuring the continuity of the information and educational environment of the systems of secondary and higher education of the Republic of Belarus [9; 12; 13; 15; 16] makes it possible to consider the formation of a teacher's information

culture as one of the determinants of efficiency. The survey of school and university teachers (on the basis of the educational cluster formed in "Polessky State University" [15]) made it possible to determine a number of qualitative trends in the development of the information culture of teachers. Only 18% of respondents have a complete understanding of the phenomenological essence and components of information culture and are familiar with scientific research in this field of knowledge. Partial and incomplete knowledge of the essence of the IC was noted by 34% of respondents. Approximately 48% of respondents need to improve and replenish theoretical and practical knowledge related to the process of forming an information culture of teachers. The survey confirmed the thesis that connects the dynamics of the level of development of the information culture of teachers with the general trends in the development of education. The respondents noted the impact of the implementation of state and regional programs on the implementation of measures for the digital transformation of education in the Republic of Belarus. In the current pedagogical practice, the information culture of teachers is closely connected with their motivated willingness to master and apply innovative ICT, active methods, forms and means of training in their professional activities. The study proves that a large role, along with the self-education of teachers, is played by various forms of optimization of pedagogical management systems, training and retraining of pedagogical personnel: the activities of methodological associations of various levels, face-to-face and remote courses, methodological seminars, conferences and problematic round tables, consultative interaction in groups of online platforms, etc. Approximately 54% of respondents noted their own desire to "keep up with more advanced students." An important aspect identified during the survey is the desire of the absolute majority of teachers (about 97% of respondents) to ensure continuity in the formation of a set of knowledge and skills related to ICT and information culture, which are necessary for training in higher education institutions. In the use of high-tech training tools and educational resources, teachers focus both on their own achievements and on the developed educational and methodological support of the website of the National Institute of Education, depending on current needs and tasks [16], on the prospects for using high-tech didactic tools of the educa-

tional segment of the official information and educational environment.

The results of the study are correlated with indicators - criterion signs of the formation of the teacher's information culture, which include:

– internal motivation, desire and willingness to carry out educational activities using ICT;

– conscious transfer of the obtained theoretical knowledge and practical skills of a methodical and methodical nature into practical pedagogical activity;

– independent development of educational, methodological and didactic materials for training sessions using innovative ICT tools, as well as involvement of colleagues and students, students in this activity;

– systematic application of ICT tools in a comprehensive pedagogical process, which includes both education and education of students, students, as well as their self-development, self-study and self-education;

– exchange of accumulated experience in the use of ICT in the educational process during the period of digitalization.

These characteristics were recorded in the process of pedagogical supervision of teachers in their professional and pedagogical tasks related to their problematic and procedural nature with the formation and development of an information culture. It is advisable to define the implementation of the process of development of information and communication skills of teachers as a manifestation of information culture as a trend of professional growth (based on the content of methodological, methodological and technological components), taking into account the specifics of pedagogical activity.

Conclusion. Summarizing all the above, the following conclusion were made:

– the teacher's information culture is an important socio-pedagogical phenomenon, and its formation is crucial for ensuring continuity in education and socialization of students at the levels of secondary and higher education in the context of digital transformation of the educational sphere;

– the specifics and dynamics of the formation and development of the information culture of teachers are largely determined by: trends in the expansion of the technologization of education; deployment of processes of digital transformation of education; teachers' own desire for professional improvement and the associated

motivation for the development of pedagogical activities;

– system factors have a significant influence on the processes of formation and development of information culture of teachers: efficiency of the pedagogical management system; diversity and efficiency of advanced training in the system of training and retraining of teachers; popularization of theoretical and methodological developments and dissemination of pedagogical experience in the development of pedagogical culture of subjects of educational activity;

– the formation of the teacher's information culture is a determining factor in ensuring the continuity of the systems of general secondary and higher education in the context of the implementation of the provisions of the Concept of digital transformation in the education system of the Republic of Belarus and overcoming the growing contradictions, challenges and threats of globalization processes.

References

1. *Kontseptsiia tsifrovoi transformatsii protsessov v sisteme obrazovaniia Respubliki Belarus' na 2019–2025 gody* [Concept of digital transformation of processes in the education system of the Republic of Belarus for 2019–2025]. (In Russian). Available at: https://drive.google.com/file/d/1T0v7iQqQ9 ZoxO2IIwR_OlhqZ3rjKVqY-/view (accessed: 01.10.2023).

2. O Kontseptsii razvitiia sistemy obrazovaniia Respubliki Belarus' do 2030 goda : postanovlenie Soveta Ministrov Respubliki Belarus', 30 noiabria 2021 goda, № 683 [On the Concept for the development of the education system of the Republic of Belarus until 2030: Resolution of the Council of Ministers of the Republic of Belarus, November 30, 2021, No. 683]. *Natsional'nyi pravovoi Internet-portal Respubliki Belarus'.* (In Russian). Available at: https://pravo.by/document/?guid=3871&p0= C22100683 (accessed: 01.10.2023).

3. Zhuk A. I. Informatsionno-obrazovatel'naia sreda pedagogicheskogo vuza: ot elektronnogo universiteta k tsifrovoi ekosisteme pedagogicheskoi podgotovki [Information and educational environment of a pedagogical university: from an electronic university to a digital ecosystem of teacher training]. *Sovremennye evraziiskie universitety: ispol'zovanie informatsionnykh tekhnologii* [Modern Eurasian universities: use of information technologies]. Moscow, MAKS Press, 2022, pp. 45–60. (In Russian)

4. Lozitsky V. L. Ispol'zovanie didakticheskogo potentsiala innovatsionnykh sredstv obucheniia v tselostnom pedagogicheskom protsesse v tsentrakh STEM-obrazovaniia [Use of didactic potential of innovative tutorials in complete pedagogical process of the STEM-education centers]. *Zhurnal Belorusskogo gosudarstvennogo universiteta. Zhurnalistika. Pedagogika* [Journal of the Belarusian State University. Journalism. Pedagogics], 2019, no. 2, pp. 83–91. (In Russian)

5. Afzalova A. N. Didakticheskie aspekty razvitiia informatsionnoi kul'tury v sisteme preemstvennosti obrazovaniia «shkola-vuz» [Didactic aspects of the development of information culture in the system of continuity of education "school-university"]. *Problemy sovremennogo pedagogicheskogo obrazovaniia* [Problems of modern pedagogical education], 2018, no. 61-3, pp. 7–11. (In Russian)

6. Gendina N. I. Didakticheskie osnovy formirovaniia informatsionnoi kul'tury [Didactic foundations for the formation of information culture]. *Shkol'naia biblioteka* [School library], 2002, no. 1, pp. 24–27. (In Russian)

7. Danil'chuk E. V. Metodologicheskie predposylki i sushchnostnye kharakteristiki informatsionnoi kul'tury pedagoga [Methodological prerequisites and essential characteristics of a teacher's information culture]. *Pedagogika* [Pedagogics], 2003, no. 1, pp. 65–74. (In Russian)

8. Zimniaia I. A. Obshchaia kul'tura i sotsial'no-professional'naia kompetentnost' cheloveka [General culture and social and professional competence of a person]. *Vysshee obrazovanie segodnia* [Higher Education Today], 2005, no. 5, pp. 14–20. (In Russian)

9. Zinovich O. Informatsionnaia kul'tura sovremennogo pedagoga kak faktor povysheniia kachestva obucheniia [Information culture of a modern teacher as a factor in improving the quality of education]. *Gosudarstva Tsentral'noi i Vostochnoi Evropy v istoricheskoi perspective* [States of Central and Eastern Europe in Historical Perspective]. Pinsk, Polessky State University, 2022, vyp. 6, pp. 118–120. (In Russian)

10. Koniushenko S. M. Formirovanie informatsionnoi kul'tury pedagoga: proektno-

refleksivnyi podkhod [Formation of a teacher's information culture: a project-reflective approach]. *Eidos* [Eidos], 2005. (In Russian). Available at: http://www.eidos.ru/journal/2005/0910-13.htm (accessed: 22.10.2023).

11. Lazareva L. I. *Informatsionnaia kul'tura i innovatsionnaia deiatel'nost' uchitelia* [Information culture and innovative activities of teachers]. Kemerovo, MBOU DPO «NMTs», 2013, 144 p. (In Russian)

12. Lozitskii V. L. Preodolenie situatsii funktsional'no-deiatel'nostnogo razryva u sub"ektov uchebnoi deiatel'nosti v usloviiakh tsifrovizatsii obrazovaniia [Overcoming the situation of the functional-activity gap among subjects of educational activities in the context of digitalization of education]. *Adukacyja i vyhavanne* [Education and upbringing], 2023, no. 9, pp. 30–37. (In Russian)

13. Lozitskii V. L. Funktsional'naia gramotnost' kak komponent informatsionnoi kul'tury sub"ektov uchebnoi deiatel'nosti v usloviiakh tsifrovoi transformatsii obrazovaniia [Functional literacy as a component of the information culture of subjects of educational activities in the context of digital transformation of education]. *Adukacyja i vyhavanne* [Education and upbringing], 2023, no. 11, pp. 5–14. (In Russian)

14. Minich O. A. *Razvitie informatsionnoi kul'tury uchitelia v sisteme dopolnitel'nogo obrazovaniia vzroslykh* [Development of teacher's information culture in the system of additional education for adults]. Abstract of Ph. D. thesis. Minsk, 2012, 26 p. (In Russian)

15. Aksenchik N. V. Otsenivanie effektivnosti funktsionirovaniia i razvitiia informatsionno-obrazovatel'noi sredy uchrezhdeniia vysshego obrazovaniia [Assessing the effectiveness of the functioning and development of the information and educational environment of a higher education institution]. *Adukacyja i vyhavanne* [Education and upbringing], 2023, no. 10, pp. 61–67. (In Russian)

16. Aksenchik N. V. Eksperimental'naia aprobatsiia razvitiia informatsionno-obrazovatel'noi sredy regional'nogo universiteta modeli 3.0 v usloviiakh tsifrovoi transformatsii obrazovaniia [Experimental testing of the development of the information and educational environment of a regional university of model 3.0 in the context of the digital transformation of education]. *Pedagogicheskaia nauka i obrazovanie* [Pedagogical science and education], 2023, no. 4, pp. 64–70. (In Russian)

17. Elektronnye obrazovatel'nye resursy [Electronic educational resources]. *Ministerstvo obrazovaniia Respubliki Belarus'. Natsional'nyi institut obrazovaniia* [Ministry of education of the Republic of Belarus. National institute of education]. (In Russian). Available at: https://e-vedy.adu.by (accessed: 22.10.2023).

Список литературы

1. Концепция цифровой трансформации процессов в системе образования Республики Беларусь на 2019–2025 годы [Электронный ресурс]. – Режим доступа: https://drive.google.com/file/d/1T0v7iQqQ9ZoxO2IIwR_OlhqZ3rjKVqY-/view. – Дата доступа: 01.10.2023.

2. О Концепции развития системы образования Республики Беларусь до 2030 года [Электронный ресурс] : постановление Совета Министров Республики Беларусь, 30 нояб. 2021 г., № 683 // Национальный правовой Интернет-портал Республики Беларусь. – Режим доступа: https://pravo.by/document/?guid=3871&p0=C22100683. – Дата доступа: 01.10.2023.

3. Жук, А. И. Информационно-образовательная среда педагогического вуза: от электронного университета к цифровой экосистеме педагогической подготовки / А. И. Жук, О. А. Минич // Современные евразийские университеты: использование информационных технологий : монография. – Москва : ООО "МАКС Пресс", 2022. – С. 45–60.

4. Лозицкий, В.Л. Использование дидактического потенциала инновационных средств обучения в целостном педагогическом процессе в центрах STEM-образования / В.Л. Лозицкий // Журнал Белорусского государственного университета. Журналистика. Педагогика. – 2019. – № 2. – С. 83–91.

5. Афзалова, А. Н. Дидактические аспекты развития информационной культуры в системе преемственности образования «школа-вуз» / А. Н. Афзалова // Проблемы современного педагогического образования. – 2018. – № 61-3. – С. 7–11.

6. Гендина, Н. И. Дидактические основы формирования информационной культуры / Н. И. Гендина // Школьная библиотека. – 2002. – № 1. – С. 24–27.

7. Данильчук, Е. В. Методологические предпосылки и сущностные характеристики информационной культуры педагога / Е. В. Данильчук // Педагогика. – 2003. – № 1. – С. 65–74.

8. Зимняя, И. А. Общая культура и социально-профессиональная компетентность человека / И. А. Зимняя // Высшее образование сегодня. – 2005. – № 5. – С. 14–20.

9. Зинович, О. Информационная культура современного педагога как фактор повышения качества обучения / О. Зинович // Государства Центральной и Восточной Европы в исторической перспективе : сборник научных статей / Министерство образования Республики Беларусь [и др.] ; редкол.: В.И. Дунай [и др.] ; под ред. Р.Б. Гагуа. – Пинск : ПолесГУ, 2022. – Вып. 6. – С. 118-120.

10. Конюшенко, С. М. Формирование информационной культуры педагога: проектно-рефлексивный подход [Электронный ресурс] / С. М. Конюшенко // Интернет-журнал "Эйдос". – 2005. – 10 сентября. – Режим доступа: http://www.eidos.ru/journal/2005/0910-13.htm. – Дата доступа: 22.10.2023.

11. Лазарева, Л. И. Информационная культура и инновационная деятельность учителя / Л. И. Лазарева. – Кемерово : МБОУ ДПО «НМЦ», 2013. – 144 с.

12. Лозицкий, В. Л. Преодоление ситуации функционально-деятельностного разрыва у субъектов учебной деятельности в условиях цифровизации образования / В. Л. Лозицкий // Адукацыя і выхаванне. – 2023. – № 9. – С. 30–37.

13. Лозицкий, В. Л. Функциональная грамотность как компонент информационной культуры субъектов учебной деятельности в условиях цифровой трансформации образования / В. Л. Лозицкий // Адукацыя і выхаванне. – 2023. – № 11. – С. 5–14.

14. Минич, О. А. Развитие информационной культуры учителя в системе дополнительного образования взрослых : автореф. дис. … канд. пед. наук : 13.00.01 / О. А. Минич ; БГПУ им. М. Танка. – Минск, 2012. – 26 с.

15. Аксенчик, Н. В. Оценивание эффективности функционирования и развития информационно-образовательной среды учреждения высшего образования / Н. В. Аксенчик // Адукацыя і выхаванне. – 2023. – № 10. – С. 61–67.

16. Аксенчик, Н. В. Экспериментальная апробация развития информационно-образовательной среды регионального университета модели 3.0 в условиях цифровой трансформации образования / Н. В. Аксенчик // Педагогическая наука и образование. – 2023. – № 4. – С. 64–70.

17. Электронные образовательные ресурсы [Электронный ресурс] // Министерство образования Республики Беларусь. Национальный институт образования. – Режим доступа: https://e-vedy.adu.by. – Дата доступа: 22.10.2023.